KENTUCKY TRANSPORTATION CENTER

College of Engineering

EVALUATION OF KENTUCKY'S "BUCKLE UP KENTUCKY: IT'S THE LAW AND IT'S ENFORCED" 2004 CAMPAIGN







Kentucky Transportation Center

Our Mission

We provide services to the transportation community through research, technology transfer and education. We create and participate in partnerships to promote safe and effective transportation systems.

We Value...

Teamwork -- Listening and Communicating, Along with Courtesy and Respect for Others
Honesty and Ethical Behavior
Delivering the Highest Quality Products and Services
Continuous Improvement in All That We Do

For more information or a complete publication list, contact us

KENTUCKY TRANSPORTATION CENTER

176 Raymond Building University of Kentucky Lexington, Kentucky 40506-0281

> (859) 257-4513 (859) 257-1815 (FAX) 1-800-432-0719 www.ktc.uky.edu ktc@engr.uky.edu

Research Report KTC-04-18/KSP1-04-1I

EVALUATION OF KENTUCKY'S "BUCKLE UP KENTUCKY: IT'S THE LAW & IT'S ENFORCED" 2004 CAMPAIGN

by

Kenneth R. Agent Transportation Research Engineer

and

Eric R. Green Transportation Research Engineer

Kentucky Transportation Center College of Engineering

> University of Kentucky Lexington, Kentucky

in cooperation with Kentucky State Police Commonwealth of Kentucky

The contents of this report reflect the views of the authors who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the University of Kentucky or the Kentucky State Police. This report does not constitute a standard, specification, or regulation. The inclusion of manufacturer names or trade names are for identification purposes and are not considered as endorsements.

July 2004

TABLE OF CONTENTS

			Page
Exe	cutive S	ummary	i
1.0	Backgr	round	1
2.0	Proced	lure	2
	2.1	Observations	2
	2.2	Publicity	2
		•	
		Fatal/Injury Crashes	
3.0	Results	S	3
	3.1	Observations	3
	3.2	Publicity	
		3.2.1 Earned Media	
		3.2.2 Paid Media	
	3.3	Enforcement	
		Fatal/Injury Crashes	
4.0	Conclu	isions	6
Tab	le 1. Sur	mmary of Enforcement Data	7
App	endix A	Safety Belt Observations	8

EXECUTIVE SUMMARY

The objective of this report was to document the results of the "Buckle Up Kentucky: It's the Law & It's Enforced" 2004 campaign in Kentucky. The campaign involved a combination of earned media, paid media, and enforcement. The earned media started two weeks prior to Memorial Day 2004 and continued through the enforcement period. The paid media started one week prior to Memorial Day. The enforcement period was a two-week period including the week before and the week of Memorial Day.

The evaluation of the campaign included documenting the activities associated with the program (publicity and enforcement) and evaluating the results. The evaluation involved conducting observations of seat belt usage at a sample of locations across the state, documenting the enforcement activities, and comparing the number of fatal and injury crashes during the enforcement period with previous years.

Seat belt usage at a mini-sample set of 21 locations across the state (compared to 200 sites for a full statewide survey) found that usage increased from a baseline level of 64.5 percent to a high of 70.5 percent during the enforcement phase of the campaign. No substantial difference in usage rates could be associated with only the media portion of the campaign with usage rates of 64.5 and 65.4 percent during the earned and paid media, respectively.

Enforcement was conducted by both state and local police through saturated enforcement and checkpoints. A total of 6,587 seat belt citations and 429 child restraint citations were given during the two-week enforcement period.

The numbers of injury crashes and injuries during the two-week enforcement period of the campaign were lower than in any of the previous three years. The number of injuries during this period was 235 less than the average of the previous three years.

A review of the data results in the opinion that the current law in Kentucky must be changed from secondary to primary enforcement to obtain a long-term high seat belt use percentage. There must also be an awareness by the public that the law is being enforced.

1.0 BACKGROUND

The use of safety belts has been shown to be an effective method to reduce the severity of injuries to occupants of motor vehicles involved in traffic crashes. Methods used to increase usage rates have included public information campaigns, legislation, and enforcement of the legislation. Kentucky enacted statewide legislation, requiring the use of safety belts for all vehicle occupants, in 1994. Kentucky's law allows secondary enforcement which means a citation can be written only after an officer stops a driver for another violation.

Statewide observational surveys were first conducted in Kentucky in 1982 with a driver usage rate of only 4 percent. The usage rate has increased dramatically over the past years to a level of 65.5 percent for drivers in 2003. However, this level is only about seven percentage points above the 58 percent rate found in 1994 immediately after enactment of the statewide legislation. The statewide level is also below the national average.

Selective traffic enforcement programs (STEPs) have been used to modify motorist behavior (especially related to speeding). The use of STEPs to increase safety belt usage rates was first done in Elmira, NY in 1985. Canada was the first country to use this technique. National efforts in the United States, using STEPs, have included Operation Buckle Down in 1991 and 1992, Safe and Sober in 1996 and 1997, and Operation ABC in 1998 through 2000. The first statewide STEP, named Click It or Ticket, was in North Carolina in 1993.

The Click It or Ticket campaign was used in Kentucky in 2001 as part of an effort for states across the southeastern United States. The coordinated effort was made in response to the high fatality rate in the southeast compared to the remainder of the nation. Increasing safety belt usage was seen as an effective means to decrease this high fatality rate. The use of a STEP enforcement effort (named Click It or Ticket) was selected as a method to increase the usage rate. A coordinated effort was made with the eight states in Region IV of the National Highway Traffic Safety Association (NHTSA) with the enforcement occurring in a two-week period around Memorial Day in 2001. A similar campaign was conducted in 2003 with the name changed to "Buckle Up Kentucky. It's the Law & It's Enforced."

The objective of this report was to document the results of a similar campaign conducted around Memorial Day in 2004. The name of the 2004 campaign was again "Buckle Up Kentucky: It's the Law & It's Enforced". A goal was to increase the belt use 10 percentage points in the enforcement period from the baseline level.

The campaign involved a combination of earned media, paid media, and enforcement. The earned media started about two weeks prior to Memorial Day and continued through the enforcement period. The paid media started about one week prior to Memorial Day. The enforcement period was a two-week period including the week before and the week of Memorial Day.

2.0 PROCEDURE

The evaluation of the campaign included documenting the activities associated with the program (publicity and enforcement) and evaluating the results. The evaluation involved conducting observations of seat belt usage at a sample of locations across the state and comparing the number of fatal and injury crashes during the enforcement period with previous years. Following is a description of the procedures used in the evaluation.

2.1 Observations

Statewide surveys have been conducted in Kentucky since 1982. The last modification in the procedure was made in 1999. The statewide survey involves collecting two hours of data at 200 sites across the state. Seat belt data are collected for the driver and front-seat passenger in the outboard position. Four categories of vehicles are used (passenger car, pickup, van, and sport utility vehicle). The sampling design plan divides the state into three geographical regions and seven roadway functional classification groups resulting in 21 stratum. The statewide rate is determined using the usage rate and total vehicle miles for each stratum.

Data had to be collected to provide a baseline statewide usage rate to compare with data collected during the earned media, paid media, and enforcement portions of the campaign. Four sets of data could not be reasonably collected at all 200 sites during the available time frame. Therefore, a site was selected from each of the 21 stratum to represent the usage rate for the stratum. A list of these sites is given in Appendix A. Using data from these 21 sites has been shown to result in very similar statewide usage rates as obtained from the 200 sites. This shows that the sample of sites can effectively represent the statewide sample sites.

Four sets of the mini-surveys were collected in 2004 before the campaign and during various phases of the campaign. The baseline data were collected in April before the start of the earned media. The data for the earned media were collected between May 10 and 16. The paid media data were collected between May 17 and 23. The data during the enforcement period were collected between May 24 and June 6.

2.2 Publicity

The media publicity could be classified in two broad categories. One was earned media which was provided at no charge. The second type was the paid media which was purchased. The paid media involved radio, network television, and cable television. Outdoor posters had been used in the past but were not used in this campaign. The type and amount of publicity during each phase of the campaign were summarized.

The marketing objective of the publicity was to create public awareness of the seat belt initiative. The primary target audience were males in the age range of 18 through 34 years. Television programming, cable networks, and radio stations/formats were selected that appeal to young males. Since approximately 66 percent of the primary audience live in the television markets of Bowling Green, Lexington, Louisville, and Paducah, these areas were selected as the primary focus. Radio and local cable were also used. Emphasis was also placed on eastern Kentucky since lower rates have been found in this region.

2.5 Enforcement

Enforcement was achieved through both the Kentucky State Police (KSP) and local agencies. Enforcement involved both saturated patrols and checkpoints. In addition to seat belt citations, other citations and arrests were made. The numbers of various types of citations given over the enforcement period were summarized.

2.6 Fatal/Injury Crashes

The statewide crash data file was searched to determine the numbers of fatal and injury crashes which occurred during the enforcement dates of the "Buckle Up Kentucky: It's the Law & It's Enforced" campaign. This data were then compared to previous years. The numbers of fatalities and injuries were also obtained during each of these time periods.

3.0 RESULTS

3.1 Observations

Four sets of mini-surveys were conducted at the 21 sample locations as part of the campaign and compared to data from the 2003 statewide survey. The data for the individual sites are given in Appendix A.

Data were collected during the various phases of the campaign with the following usage rates obtained during the listed dates.

Baseline	April 2004	64.5 percent
Earned Media	May 10 - May 15, 2004	64.5 percent
Paid Media	May 17 - May 22, 2004	65.4 percent
Enforcement	May 24 - June 4, 2004	70.5 percent

The baseline data closely agree with the 2003 statewide survey which had found a statewide usage rate of 65.5 percent. The results from the baseline data showed that the sites selected for the mini-surveys were representative of all the statewide sites.

The data show no substantial difference in usage rates could be associated with the media portion of the campaign; however, there was a substantial increase during the enforcement phase of the campaign. However, the goal of increasing seat belt usage 10 percentage points from the baseline was not achieved.

3.2 Publicity

The publicity consisted of a combination of earned and paid media. Following is a summary of the amount and type of advertising used in the earned and paid media.

3.2.1 Earned Media

The earned media campaign was a combined effort between the Kentucky State Police (KSP) Public Affairs officers and Paul Schultz Advertising. The earned media dates were a four-week period between May 10 and June 6, 2004.

There were broadcast news stories on television in Lexington and Louisville. There were 27 newscasts in Lexington with an estimated value of \$23,500 and an estimated number of impressions for persons 18 years of age or greater of 625,000. In Louisville there were 13 newscasts with an estimated value of \$18,450 and impressions in this age group of 541,000. There was also print news stories but the number of such stories were not tracked. The estimate value of all the broadcast news stories was \$41,950.

There were also in-studio and phone-in interviews/promos on television and radio. The prerecorded promos were 30 seconds in length and recorded by a trooper or KSP representative. There were seven television interviews/recorded promos in three major markets (three in Louisville, three in Lexington, and one in Bowling Green). There were 12 radio interviews/recorded promos with five in two metro area radio markets (three in Louisville and two in Lexington) and seven in outlying markets. The estimated value of the interviews/recorded promos was about \$17,550 with an estimated number of impressions for persons 18 years of age or greater of 263,000.

The total estimated equivalent value of the broadcast earned media was \$59,500. The total equivalent number of impressions in the broadcast earned media was 1,429,000.

3.2.2 Paid Media

The paid media was administered by a private company (Paul Schultz Advertising). It consisted of network television, cable television, and radio spots. The paid media dates were in the two weeks between May 26 and June 6, 2004. There were both paid and bonus media included. The cost of all of the paid media was \$400,000 with the estimated value of the bonus media of \$111,075

resulting in a total estimated value of \$511,075. Following is a description of the various types of paid media. The bonus media was negotiated to run all summer between Memorial Day and Labor Day which allowed a greater bonus commitment from all stations.

Network Television: The television spots were aired on 16 broadcast television stations in five cities (Bowling Green, Hazard, Lexington, Louisville and Paducah). The network affiliates included NBC, CBS, ABC, FOX, and WB. The television spot was 30 seconds in length. It was recorded by the Paul Schultz Advertising agency. There were 460 paid and 460 bonus spots for a total of 920. The cost for the paid television spots was \$141,500 with the value of the bonus spots estimated as \$46,000.

Cable Television: The cable television spots were aired in eight markets (Ashland, Lexington Metro, Louisville, Northern Kentucky, Owensboro, Pikeville, Prestonsburg, and Somerset). The cable networks included were ESPN, ESPN2, MTV, USA, TNN, Comedy Central, and TNT. The same television spot that aired on broadcast television also aired on cable. There were 1,803 paid and 1,803 bonus spots for a total of 3,606. The cost for the paid cable spots was \$65,000 with the value of the bonus spots estimated as \$45,075.

Radio: The radio spot was 60 seconds in length and was recorded specifically for the subject campaign by Paul Schulz Advertising. The radio spot was played in over 100 radio stations which were spread across the state with various types of format. There were 1,920 paid and 2,000 bonus spots for a total of 3,920. The cost for the paid radio spots was \$138,000 with the value of the bonus spots estimated as \$20,000. Radio traffic sponsorships that were read by the station personalities were also used to increase frequency of the message in the Louisville and Lexington markets. The cost for the radio traffic sponsorships was \$55,500.

Outdoor Posters: Previous campaigns have included outdoor posters (12 feet by 24 feet). For example, in 2003 there were 126 outdoor posters (80 paid with 46 bonus) placed across the state with a cost of about \$37,000 for the paid posters and a value of about \$23,000 for the bonus posters. The 2004 campaign did not include the use of outdoor posters.

3.3 Enforcement

The enforcement period was a two-week period from May 24 through June 6, 2004. There are approximately 377 police agencies in Kentucky that participate in traffic enforcement. Contact was made with each agency with an agreement of participation obtained from 237 agencies. The extent of participation varied by local agency with reports of activity obtained from 202 of the agencies. A summary of the results of the enforcement is given in Table 1.

The enforcement involved both saturated enforcement and checkpoints and involved both KSP and local police. The total number of hours worked by all the officers was about 209,000 with only

about 2.3 percent of those hours related to checkpoints. There were 801 checkpoints with 68 percent conducted by KSP.

There were a total of 6,587 seat belt citations given along with 429 child restraint citations during the two-week enforcement period. About 38 percent of the seat belt citations and 59 percent of the child restraint citations were issued by the KSP. The large majority of the seat belt citations from both KSP and local police were the result of saturated enforcement.

There were other citations and arrests which occurred as a result of this enforcement. The largest number of other citations were speeding with 19,586 of those citations. There were 1,629 DUI arrests and 1,425 drug related arrests.

3.4 Fatal/Injury Crashes

The numbers of fatal crashes, fatalities, injury crashes, and injuries occurring in Kentucky during the enforcement period of the "Buckle up Kentucky: It's the Law & It's Enforced" campaign (May 24 through June 6, 2004) were compared to those occurring during the 14-day enforcement period for the previous three years around the Memorial Day holiday. The numbers of injuries and injury crashes in 2004 were lower than in any of the previous three years. The numbers of fatalities and fatal crashes in 2004 were higher than for the previous three years.

There were 36 fatal crashes with 44 fatalities during the two-week enforcement period in 2004. This compares to an average of about 29 fatal crashes with 31 fatalities over the 14 days of enforcement in 2001 through 2003.

The numbers of injury crashes and injuries decreased during the 2004 enforcement time period compared during the three years. There were 1,184 injury crashes resulting in 1,766 injuries in 2004. This compares to an average of about 1,332 injury crashes and 2,001 injuries in 2001 through 2003.

There were 5,765 total crashes during the 14 days of enforcement in 2004. This compares to an average of about 5,809 in the previous three years.

4.0 CONCLUSIONS

The observational surveys showed that seat belt usage can be increased using a combination of publicity and enforcement. However, publicity alone was shown to have a minimal effect on increasing usage. A substantial increase in seat belt usage occurred when increased enforcement was combined with the publicity. The data show that an increased awareness of the possibility of receiving a ticket for failing to wear a seat belt is required for a certain segment of the driving population to increase their use of seat belts. The increase in usage has not been sustained when the perception of an increased

possibility of receiving a ticket is removed.

A review of the data results in the opinion that the current law in Kentucky must be changed from secondary to primary enforcement to obtain a long-term high seat belt use percentage. This must be combined with the necessary publicity to provide an awareness to the public that the law is being enforced.

Table 1. SUMMARY OF ENFORCEMENT DATA

	KSP	LOCAL POLICE	TOTAL	
		1112	***	
Total Officer Hours	63,080	146,278	209,358	
Overtime Hours	4,176	8,763	12,939	
Total Checkpoint Hours	1,347	3,476	4,823	
Number of Checkpoints	546	255	801	
Seatbelt Citations	2,513	4,074	6,587	
Child Restraint Citations	252	177	429	
Speeding Citations	6,907	12,679	19,586	
Reckless Driving	136	391	527	
Operating on Suspended				
License	378	1,083	1,461	
No Insurance	900	4,082	4,982	
Other Traffic Violations	7,039	11,766	18,805	
DUI Arrests	626	1,003	1,629	
Drug Arrests	234	1,191	1,425	
Other Felony Arrests	251	994	1,245	
Fugitive Apprehensions	101	792	893	
Stolen Vehicles Recovered	9	49	58	

APPENDIX A. SAFETY BELT OBSERVATIONS

Table A-1. SUMMARY OF SEAT BELT OBSERVATIONS AT INDIVIDUAL SITES

LOC	ATION	PERCENT USAGE (ALL FRONT SEAT)				
COUNTY	INTERSECTION	BASELINE	EARNED MEDIA	PAID MEDIA	ENFORCE	EMENT
Barren	I-65 at Exit 53	82.6	77.1	76.6		80.8
Meade	US 31W at KY 1638	63.7	68.0	70.7		73.4
Grayson	KY 259 at US 62	53.6	54.3	56.4		59.5
Logan	US 68 at US 79	52.9	56.7	57.5		61.6
Hopkins	Pennyrile Parkway at Exit 44		75.2	70.7	66.9	76.3
Henderson	US 41A at 5th St.	62.2	61.5	59.7		67.1
Calloway	KY 1637 at 16th	56.7	57.6	58.1		62.6
Shelby	I-64 at Exit 28	72.2	72.5	70.8		76.6
Woodford	US 60 at US 62	76.4	74.6	71.7		79.9
Oldham	KY 146 at KY 1817	62.7	70.1	67.2		72.4
Franklin	KY 2820 at US 127	54.6	55.7	60.8		58.6
Kenton	I-75 at Exit 186	74.4	74.5	74.5		77.6
Jefferson	US 31W at KY 841	62.9	60.3	62.3		66.1
Boone	US 42 at US 25	64.4	63.8	67.2		70.1
Boyd	I-64 at Exit 185	73.3	72.9	70.7		77.6
Lincoln	US 27 at US 150	59.2	58.5	62.3		72.1
Carter	US 60 at KY 7	50.3	50.8	51.7		63.0
Floyd	KY 680 at KY 122	45.1	42.6	48.7		56.4
Rowan	I-64 at Exit 137	72.9	71.4	68.6		74.2
Laurel	US 25E at US 25	65.1	59.5	60.6		66.0
Pulaski	KY 80 at KY 2296	57.9	60.0	66.0		70.0
		64.5	64.5	65.4		70.5

9